

Claims

We claim:

1           1. A method of treating, reducing, or attenuating obesity in an individual comprising  
2           the administration of therapeutically effective amounts of calcium to an individual and  
3           inducing a metabolic change in said individual.

1           2. The method of claim 1, wherein said metabolic change is decreasing intracellular  
2           calcium concentrations ( $[Ca^{2+}]_i$ ), stimulating lipolysis, inhibiting lipogenesis, increasing the  
3           expression of white adipose tissue uncoupling protein 2 (UCP2), reducing serum insulin  
4           levels, thermogenesis, or decreasing the levels of calcitrophic hormones.

1           3. The method of claim 1, wherein said metabolic change is weight loss.

1           4. The method of claim 1, wherein said individual is maintained on a restricted  
2           caloric diet.

1           5. The method of claim 1, wherein said calcium is contained in dairy products, a  
2           dietary supplement, foodstuffs supplemented with calcium, or other foods high in calcium.

1           6. The method of claim 5, wherein said calcium is contained in salmon, beans, tofu,  
2           spinach, turnip greens, kale, broccoli, waffles, pancakes, pizza, milk, yogurt, cheeses, cottage  
3           cheese, ice cream, frozen yogurt, nutrient supplements, calcium fortified vitamin  
4           supplements, or liquids supplemented with calcium.

1           7. A method of attenuating weight gain and adiposity in children, reducing the risk  
2           of adiposity in children, or controlling weight gain in children comprising the administration  
3           of therapeutically effective amounts of calcium.

1           8. The method of claim 7, wherein said individual is maintained on a restricted  
2 caloric diet.

1           9. The method of claim 7, wherein said calcium is contained in dairy products, a  
2 dietary supplement, foodstuffs supplemented with calcium, or other foods high in calcium.

1           10. The method of claim 9, wherein said calcium is contained in salmon, beans, tofu,  
2 spinach, turnip greens, kale, broccoli, waffles, pancakes, pizza, milk, yogurt, cheeses, cottage  
3 cheese, ice cream, frozen yogurt, vitamin supplements, or liquids supplemented with  
4 calcium.

1           11. A method of diagnosis and treatment of obesity comprising the following steps:

- 2           a.       determining the weight and, optionally, the height of an individual;  
3           b.       comparing the weight, or optionally the weight/height ratio, of the  
4               individual to established norms;  
5           c.       optionally, classifying the obesity of the individual;  
6           d.       optionally providing the individual with information relating to the  
7               benefits of maintaining a normal weight, or a normal weight/height  
8               ratio; and  
9           e.       providing the individual with a dietary plan containing high levels of  
10           calcium and, optionally printed matter disclosing the obesity-control  
11           benefits of a high calcium diet.

1           12. The method of claim 11, further comprising providing said individual with food  
2 products containing therapeutically effective amounts of calcium.

1           13. A computer implemented method of diagnosing, treating, and/or monitoring  
2 obesity comprising the following steps:

- a. determining the weight and, optionally, the height of an individual and inputting these values into a computer system;
- b. optionally calculating the weight/height ratio of the individual;
- c. comparing the weight, or optionally the weight/height ratio, of the individual to established norms contained in a weight and/or weight/height database available to the computer;
- d. optionally classifying the obesity of the individual;
- e. optionally providing the individual with information relating to the benefits maintaining a normal weight, or optionally a normal weight/height ratio; and
- f. providing the individual a dietary plan containing high levels of calcium and, optionally printed matter disclosing the obesity-control benefits of a high calcium diet.
- g. optionally monitoring the progress of the individual.

14. The method of claim 13, further comprising providing said individual with dietary products containing therapeutically effective amounts of calcium.

15. A computer implemented methods of diagnosing, treating, and/or monitoring obesity over a communication network comprising the following steps:

- a. obtaining weight and, optionally, height data from an individual by input of the data on a web page;
- b. optionally calculating the weight/height ratio of the individual in a computer connected to the Internet;
- c. comparing the weight, or optionally the weight/height ratio, of the individual to established norms contained in a weight and/or weight/height database available to said computer;
- d. optionally classifying the obesity of the individual;
- e. optionally providing the individual with information relating to the benefits maintaining a normal weight, or optionally a normal weight/height ratio; and

- 13 f. providing the individual a dietary plan containing high levels of calcium and,  
14 optionally, information regarding the obesity-control benefits of a high  
15 calcium diet.

1 16. The method of claim 15, further comprising providing said individual with  
2 dietary products containing therapeutically effective amounts of calcium.

1 17. The method of claim 15, wherein said method further comprises the verification  
2 of the inputted data.

1 18. An article of manufacture useful in stimulating the metabolic consumption of  
2 adipose tissue containing foodstuffs and printed materials disclosing the advantages of high  
3 calcium diets.

1 19. The article of manufacture of claim 18, wherein the printed materials are in the  
2 form of pamphlets.

1 20. The article of manufacture of claim 18, wherein printed material is embossed or  
2 imprinted on the foodstuff and indicates the amounts of calcium contained within the  
3 foodstuff, recommended levels of calcium intake necessary for the metabolically assisted loss  
4 of adipose tissue, recommended BMI values, or recommended heights and weights for  
5 individuals.

1 21. A method for promoting the consumption of a calcium-containing product  
2 wherein said method comprises the public distribution of information describing the obesity-  
3 control benefits of said product which are attributable to the consumption of calcium in said  
4 product.

1           22. The method, according to claim 30, wherein said distribution of said information  
2 is achieved by a method selected from the group consisting of verbal communication,  
3 pamphlet distribution, print media, audio tapes, magnetic media, digital media, audiovisual  
4 media, billboards, advertising, newspapers, magazines, direct mailings, radio, television,  
electronic mail, braille, electronic media, banner ads, fiber optics, and laser light shows.

1           23. The method, according to claim 30, wherein said information pertains to a class  
2 of products to which said calcium-containing product belongs.

1           24. The method, according to claim 32, wherein said class of products is dairy  
2 products.

1           25. The method, according to claim 30, wherein said product is selected from the  
2 group consisting of milk, cereals, and vegetables.